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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/721,802	11/25/2003	Qi Cheng	SVL920030080US1	6257		
47069 75	47069 7590 06/30/2006			EXAMINER		
	YNES & VICTOR, LLP	ALI, MOHAMMAD				
ATTN: IBM54 315 SOUTH BI	EVERLY DRIVE, SUITE 2	ART UNIT	PAPER NUMBER			
BEVERLY HILLS, CA 90212			2166			
			DATE MAILED: 06/30/2006	6		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary    10/721,802			Applicat	ion No.	Applicant(s)				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MALLING DATE OF THIS COMMUNICATION.  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MALLING DATE OF THIS COMMUNICATION.  If NO period for reply is specified above, the maximum statutory period will apply and will expire 3K (8) MONTHS from the malting date of this communication.  If NO period for reply is specified above, the maximum statutory period will apply and will expire 3K (8) MONTHS from the malting date of this communication.  If NO period for reply is specified above, the maximum statutory period will apply and will expire 3K (8) MONTHS from the malting date of this communication.  If NO period for reply is specified above, the maximum statutory period will apply and will expire 3K (8) MONTHS from the malting date of this communication, were if the specified above the malting date of this communication, were if the specified above the malting date of this communication, were if the specified above the malting date of this communication, were if the specific date of this communication.  If NO period for reply is specified above, the maximum statutory period will apply and will reply and the specific above the maximum statutory period will apply and the specific above the maximum statutory period will apply and the specific above the maximum statutory period will apply and the specific above the maximum statutory period will apply and the specific above the maximum statutory period will apply and the specific above the speci	Office Action Summary		10/721,8	02	CHENG ET AL.	CHENG ET AL.			
Provide for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions drum may be available under the provisions of 30 FR1-13(b), in no event however, may a reply be timely filed after \$1X (6) MONTH'S from the mailing date of this communication, in over with review, may a reply be timely filed after \$1X (6) MONTH'S from the mailing date of this communication, and the state of \$1X (6) MONTH'S from the mailing date of this communication, and the state of \$1X (6) MONTH'S from the mailing date of this communication, and the state of \$1X (6) MONTH'S from the mailing date of this communication, even if timely filed, may reduce any sense place time adjustment. See 37 CFR 1.70(e).  Status  1) ☑ Responsive to communication(s) filed on 25 November 2003.  2a) ☐ This action is FINAL.  2b) ☑ This action is non-final.  3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ☑ Claim(s) 1-21 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) ☐ Claim(s) is/are allowed.  6) ☑ Claim(s) is/are allowed.  6) ☑ Claim(s) 3 and 13 is/are objected to.  8) ☐ Claim(s) 3 and 13 is/are objected to by the Examiner.  Application Papers  9) ☑ The specification is objected to by the Examiner.  Application Papers  9) ☑ The pecification is objected to by the Examiner.  Application Papers  9) ☑ The cath or declaration is objected to by the Examiner.  Application Papers  9) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received in Application No			Examine	r	Art Unit				
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#### **DETAILED ACTION**

1. This communication is in response to the application filed on 11/25/03.

The application has been examined and claims 1-21 are pending in this office action.

## Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Examiner suggests Abstract should be more descriptive towards the invention.

### Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 are directed to non-statutory subject matter because it does not produce a tangible result. It's not until the selecting is brought out of the mind or processor that it becomes more than an abstraction, instead being real-world and enabling the functionality to be realized.

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Also, claims 11-20 are directed to non-statutory subject matter. Computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

# Claim Rejections - 35 USC § 112

- 4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 5. Claims 3, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "may be" is unclear towards the invention.

## Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Larson et al. ('Larson' hereinafter), USP, 6,850,933.

With respect to claim 1,

Larson teaches a method for executing a query (see col. 6, line 48-49, Fig. 2), comprising:

matching a query to an outlier materialized query table (see col. 16, lines 55-61, Larson);

searching the query for a source predicate (see col. 16, lines 4-8, Larson); searching the outlier materialized query table for a target column that corresponds to a source column in the source predicate (see col. 16, lines 62-67, Larson);

deriving a new range predicate based on the target column (see col. 16, lines 29-35, Larson); and

introducing the new range predicate into the query (see col. 8, lines 1-8, Larson).

As to claim 2,

Larson teaches merging the new range predicate into the query (see col. 9, lines 59-61, Larson).

As to claim 3,

Larson teaches generating a bounds view from source predicate information and range binding information collected for the target column, wherein the bounds view computes a lower bound and an upper bound for the new range predicate, and wherein the bounds view may be generated using at least one of a range multiplying technique or a range stretching technique (see col. 9, lines 16-26, Larson).

As to claim 4,

Larson teaches wherein matching the query to an outlier materialized query table further comprises: creating a first query graph model representation of the query (see col. 5, lines 55-65, Larson);

creating a second query graph model representation of the outlier materialized query table (see col. 11, lines 54-59, Larson); and

comparing the first query graph model and the second query graph model (see col. 7, lines 39-51 et seq., Larson).

As to claim 5,

Larson teaches wherein there is a join in the outlier materialized query table and wherein matching further comprises: determining that join predicates other than the outlier predicate in the outlier materialized query table have matching predicates in the query (see col. 7, lines 39-51, Larson).

As to claim 6,

Larson teaches wherein the new range predicate is derived by selecting the target column from base tables involved in the join (see col. 16, lines 62-67, Larson).

As to claim 7,

Larson teaches wherein the target column is from a table other than the one in which the source column resides (see col. 14, lines 13-21, Larson).

As to claim 8,

Larson teaches wherein the target column is from a same table as the one in which the source column resides (see col. 14, lines 13-21, Larson).

As to claim 9,

Larson teaches wherein the query contains a correlation predicate (see col. 16, lines 5-13, Larson).

As to claim 10,

Larson teaches translating the correlation predicate into a join predicate in a context of the outlier materialized query table (see col. 16, lines 55-67, Larson);

when the translated join predicate matches the join predicate in the outlier materialized query table, deriving a new predicate for the correlation predicate in a child query block using a source predicate on a quantifier of a parent query block (see col. 8, lines 40-67, Fig. 3, Larson); and

wherein searching the query for the source predicate further includes searching the parent query block for the source predicate (see col. 8, lines 40-67, Fig. 7, Larson).

Claims 11-21 have same subject matter as of claims 1-10 and essentially rejected for the same reasons as discussed above.

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#### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohammad Ali

Primary Examiner

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MA June 27, 2006